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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,256	04/09/2001	Jeffrey Dinkel	DINK1	7582

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EXAMINER
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TRAN A, PHI DIEU N

ART UNIT	PAPER NUMBER
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3637

DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/829,256

Applicant(s)

DINKEL, JEFFREY

Examiner

Phi D A

Art Unit

3637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 36-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19,36-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 50 recites the limitation "the alkaline" in line 1. There is insufficient antecedent basis for this limitation in the claim.

The claim, however, appears to be depended upon claim 49 instead.

The claim is examined as best understood as depended upon claim 49.

3. Claims 45-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per claims 45, 48, "on the upper principal surface, if any, differ..." is indefinite. The claim language does not clearly set forth the metes and bounds of the claim, and is thus confusing.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 8, 13-16, 18, 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Dinkel (3284980).

Mathieu (figure 9) discloses a construction element having a core (10) having an upper principal surface and a lower principal surface, a membrane (2) on the lower principal surface of

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the core to protect the panel, alkaline resistance fiber to be used with a Portland cement, having additive of expanded shale (col 10 line 3 third paragraph), a pervious upper reinforcement material on the upper principal surface of the core, a cement slurry binding the reinforcement layer on the upper surface of the core, an upper coating/cement slurry in communication with the upper principal surface of the core and the pervious upper reinforcement material, the layer comprising a fiberglass mesh with an alkaline resistant coating selected from the group consisting of woven fiberglass and fiberglass skim.

Mathieu does not show the core having alkaline resistance fiber, and the membrane being impervious and high tensile strength.

Dinkel discloses fiber in the core to reinforce the core.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu to show the core having alkaline resistance fiber, and the membrane being impervious because fiber would reinforce and strengthen the core as taught by Dinkel, and having the membrane being impervious and high tensile strength would protect the panel against moisture and water.

3. Claims 2, 7, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Dinkel (3284980).

Mathieu as modified by Dinkel shows all the claimed limitations except for the fiber being chopped reinforcement fibers randomly dispersed in the core.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu's modified structure to show the fiber being chopped reinforcement fibers randomly dispersed in the core because using chopped fibers randomly distributed on a

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core to reinforce a core is well-known in the art as it provides high strength to the core while maintaining low distribution cost.

4. Claims 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Dinkel (3284980).

Mathieu as modified by Dinkel shows all the claimed limitations except for the membrane being a reinforced polymer membrane, spunbonded olefin, alkaline resistant dense polymer fiber mat, Tyvek, or the membrane having waterproof paperboard.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu's modified structure to show the membrane being a reinforced polymer membrane, spunbonded olefin, alkaline resistant dense polymer fiber mat, Tyvek, or the membrane having waterproof paperboard because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

5. Claims 3-6, 9-12, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Dinkel (3284980).

Mathieu as modified by Dinkel shows all the claimed limitations except for the membrane being a reinforced polymer membrane, spunbonded olefin, alkaline resistant dense polymer fiber mat, or the membrane having waterproof paperboard.

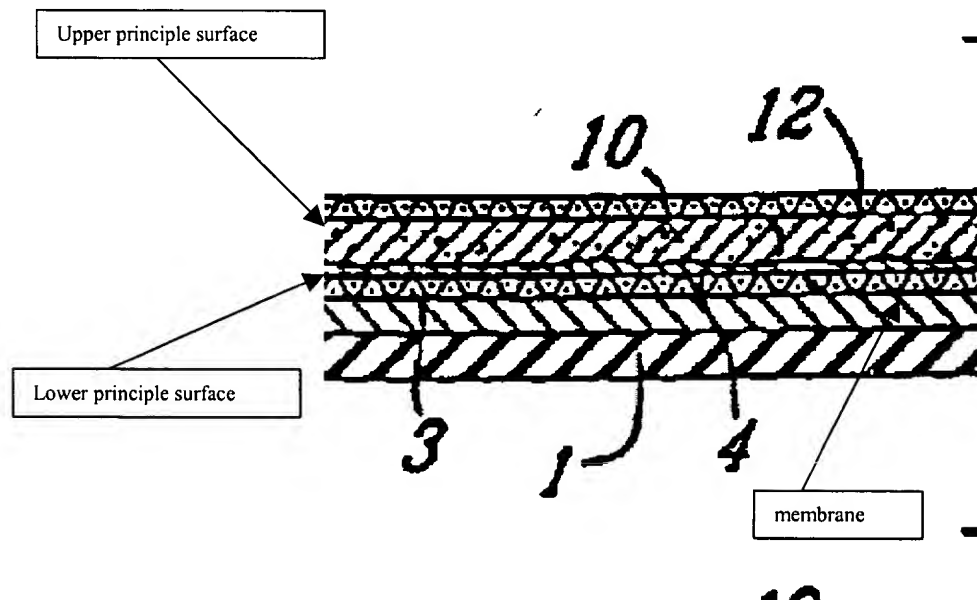
It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu's modified structure to show the membrane being a reinforced polymer membrane, spunbonded olefin, alkaline resistant dense polymer fiber mat, or the membrane having waterproof paperboard because it has been held to be within the general skill

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of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

6. Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Dinkel (3284980).

Mathieu (figure 9) discloses an asymmetrical construction element (see below) having a core (10) having an upper principal surface and a lower principal surface, a membrane (2) on the lower principal surface of the core to protect the panel, the element being asymmetrical in design such that a layer or layers on the upper principle surface differ in arrangement from the layer or layers on the lower principle surface (inherently so as the lower surface include the slurry cement layer), the upper principle and the lower principle surface of the core having different moisture-resistant layers respectively (inherently per the slurry cement layer), the different moisture resistant layers having different moisture resistant properties.



Mathieu does not show the membrane being impervious.

Dinkel discloses fiber in the core to reinforce the core.

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It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu to show the membrane being impervious because having the membrane being impervious would protect the panel against moisture and water.

7. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Dinkel (3284980).

Mathieu (figure 9) discloses an asymmetrical construction element (see figure 9 above) having a core (10) having an upper principal surface and a lower principal surface, a pervious upper reinforcement material (12) on the upper principal surface of the core, an upper coating/cement slurry in communication with the upper principal surface of the core, a membrane (2) on the lower principal surface of the core, the construction being asymmetrical in design such that a layer or layers on the upper principle surface differ in arrangement from the layer or layers on the lower principle surface (inherently so as the lower surface include the slurry cement layer), alkaline resistance fiber to be used with a Portland cement.

Mathieu does not show the membrane being impervious.

Dinkel discloses fiber in the core to reinforce the core.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu to show the membrane being impervious because having the membrane being impervious would protect the panel against moisture and water.

8. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Dinkel (3284980).

Mathieu as modified shows all the claimed limitations except for the core having alkaline resistance fiber.

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Dinkel discloses fiber in the core to reinforce the core.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu to show the core having alkaline resistance fiber, and the membrane being impervious because fiber would reinforce and strengthen the core as taught by Dinkel.

9. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Dinkel (3284980).

Mathieu as modified by Dinkel shows all the claimed limitations except for the fiber being chopped reinforcement fibers randomly dispersed in the core.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu's modified structure to show the fiber being chopped reinforcement fibers randomly dispersed in the core because using chopped fibers randomly distributed on a core to reinforce a core is well-known in the art as it provides high strength to the core while maintaining low distribution cost.

10. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Dinkel (3284980).

Mathieu as modified by Dinkel shows all the claimed limitations except for the membrane being a reinforced polymer membrane.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu's modified structure to show the membrane being a reinforced polymer membrane because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.



*Response to Arguments*

11. Applicant's arguments filed 4/17/03 to claims 1-19 have been fully considered but they are not persuasive.

With respect to applicant's argument that the Mathieu reference does not show a construction element itself having a membrane itself, examiner respectfully disagrees. Mathieu shows the limitations as claimed. There is nothing in the claims which require that the construction element be separated from that of the conveyor belt or the film/membrane. The argument is thus moot.

With respect to applicant's argument about the use of randomly dispersed chopped fibers in the core, examiner respectfully points out that having the fibers in the core would certainly enhance the strength of the core structure and is thus motivated/obvious. Also, the fact that a reference uses reinforcement mesh to reinforce the outer surfaces of a structures is not to be taken as a deterrent from further reinforcement a structure/core as long as the modification better the structure. The argument is thus moot.

With respect to applicant's argument that it is not well-known to use the well-known material of reinforced polymer membrane, spunbonded olefin, alkaline resistant dense polymer fiber mat, or waterproof paperboard in the backerboard panel, examiner respectfully disagrees. The materials mentioned above are well known to be used to reinforce construction structures. Thus, choosing the well-known material to reinforce a construction element would certainly be within the level of a worker in the art and as a matter of obvious design choice. The argument is thus moot.

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***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art shows panels with different layers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 703-306-9136. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 703-308-2486. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Phi Dieu Tran A  
June 20, 2003



LANNA MAI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600

